

Remarks

Applicants respectfully submit an amended specification in compliance with Examiner's request. Applicants cancel claims 1-10 in accordance with Examiner's rejections and add claims 11 through 19.

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Addressing Examiners remarks as numbered:

1. The specification is amended as requested.

3.1 Applicants respectfully point out the term "news screen fines" is defined beginning in the 3rd line of [0004], reproduced here:

10 "[0004] The advent of this equipment, by the nature of its operation, created its own waste by-product which is typically sent to a landfill. This material is referred to as **"4 inch news screens fines" (NSF). It is aggregates of compressed waste which fall through the first operation of the conventional disc screening method; based on the separation of the discs it is less than 4 inches in at least two dimensions; these**

15 **dimensions vary somewhat with the particular equipment and operator. This material is a combination of glass, paper, metallic objects and general refuse, including food wastes.**

Applicants respectfully submit that one knowledgeable in the art would understand the phrase "news screen fines" based on the above definition; therefore rejection for being

20 indefinite based on 35 USC § 112, second paragraph should be traversed.

3.2 We agree with your objection, "... smaller than one inch"; claims 1-5 are cancelled and corrections are made as appropriate in the new claims. There is no Claim 12 in the original application.

4. We agree with your objection with regard to two air streams; claims 4 and 10 are cancelled; corrections are made as appropriate in the new claims.

5. We agree; claim 8 is cancelled.

7. Claims 1- 8 are cancelled. Applicants also submit that Mueller, US 4,636,305, invented an apparatus for sorting grits, a food product made from flour milling. As noted, "The main function is the sorting of the grits fractions with a maximum granulation range and consisting of clean grits, mixed products, light products, special products (cooking grits, etc.), seed, etc. The maximum yield of clean grits is sought."

Mueller, US 4,652,362, claims an apparatus for separating stones from cereals quite similar to [305]; from Claim 1: "... two superposed inclined vibrating tables (1, 2) are provided which have the same air flowing through them and a common drive...". Mueller also notes that "fine dirt and fine sand can be separated simultaneously" and that "foreign content" is between 2 to 6 mm for wheat grades and 5 to 20 mm for maize[§1, L31].

Mueller, US 4,913,804 claims a device for separating granular product into several fractions using fluidized bed tables.

Mueller's intent with these inventions is to separate foreign material, debris, from food products, e.g. cereal, classify the food product by size and discard the debris. Applicants respectfully point out that no specific screen size is called out in the three inventions. One knowledgeable in the art would know that a screen size is determined by the goal of

the classifying step. The distinction of the instant invention is that the claimed apparatus is classifying by physical size first in order to separate the "news screen fines" into their different compositional components, namely paper, glass and metal, so as to achieve an economic recovery. The instant invention's purpose is to discard as little as possible and sort as much as possible by composition. Mueller's apparatus are not capable of this process; nor do they teach anything critical to the instant invention.

In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

8. Claim 2 is cancelled. Applicants respectfully point out that no screen width is mentioned in any of the three Mueller inventions. Applicants respectfully submit that the physical "screen size" is a matter of determined by the particular process and the throughput required of the apparatus. The instant invention is designed to process over one hundred tons per twelve hours. A screen size of at least two feet is essential to process that volume of material.

In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

9. Claim 3 is cancelled. Applicants respectfully point out that no screen, or classification, size is mentioned in any of the three Mueller patents; it seems highly improbable that a cereal product has a size capable of being sorted larger than 3.5 inches. A classification process by its nature must have a screen size; the instant invention is focused on a

specific fraction of recyclable material wherein it is economic to separate paper and glass and metal, one from the other. The screen sizes are chosen to facilitate the sorting into groups of common composition starting with a physical size of each component not exceeding six inches when compressed. Mueller's task is remove and discard debris and
5 sort a common composition material by size. No screen size, whether the grid opening or physical dimension is "inherent"; rather it is dependent on the beginning material size distribution, the desired ending size distribution and the volume per hour to be processed.

In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants
10 respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

10. Claim 4 is cancelled. Applicants respectfully note that all of Mueller's inventions employ vibratory tables with air flow along the entire length. Note from Claim 1 of US 4,636,305: "...an air distribution chamber coupled to said channel and communicating with said screen layers so as to provide air circulation therethrough,...". The instant
15 invention does not use air flow through any of the screens; the airflow is provided at the end of the second screen to separate the (classified) product not falling through, a clear differentiation to Mueller.

In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants
20 respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

11. Claim 5 is cancelled. Applicants respectfully point out that Mueller is using an air stream in conjunction with a vibrating screen and using a fluidized bed to facilitate transport and separation; this is contrasted with the instant invention which uses a pneumatic separator after the screening operation. It is not apparent to the applicants how
5 the screen sizes for separating cereal grains, mechanically or pneumatically, teaches or anticipates anything about separating compressed, recyclable garbage; no physical sizes or densities are similar.

In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants
10 respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

12. Claim 6 is cancelled. Applicants respectfully note that the words “compress” and “compressed” do not appear in US 4,363,305, 4,652,362 or 4,913,804. It seems unlikely that cereal grains go through a deliberate “compressing” operation while still mixed with
15 foreign material. Applicants respectfully point out that the Mueller patents were conceived almost 10 years prior to the first appearance of “news screen fines”.

In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

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13. Claim 7 is cancelled. The words “pneumatic” and “separator” do not appear in US 4,363,305. In US 4,652,362, the word “separator” is used as “Paddy separator” and

“stone separator”. The words “pneumatic” and “separator” do not appear in US 4,913,804. It is not apparent to the applicants how the screen sizes for separating cereal grains, mechanically or pneumatically, teaches or anticipates anything about separating compressed, recyclable garbage; no physical sizes or densities are similar.

5 In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

14. Claim 8 is cancelled. Mueller's intent with these inventions is to separate foreign
10 material, debris, from food products, e.g. cereal, classify the food product by size and discard the debris. Applicants respectfully point out that no specific screen size is called out in the three inventions. One knowledgeable in the art would know that a screen size is determined by the goal of the classifying step and the incoming material size distribution. The distinction of the instant invention is that the claimed apparatus is
15 classifying by physical size first in order to separate the "news screen fines" into their different compositional components, namely paper, glass and metal, so as to achieve an economic recovery. The instant invention's purpose is to discard as little as possible and sort as much as possible by composition. Mueller's apparatus are not capable of this process; nor do they teach anything critical to the instant invention.

20 In addition there is no suggestion or implication in any of the three Mueller patents of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

15. Claims 1-8 are cancelled. Hirschler in US 5,098,557 teaches how to separate foreign material and debris from granular material such as wheat, milo, oats and the like. No screen size is mentioned by Hirschler; he notes in § 9, L 23+ that “ second intermediate screen of a different size...”. The only dimension noted by Hirschler is in § 15, L 55+
5 where he says, “...The opening of the feed hopper on coarse grains will run between 1 ½ and 4 inches open. On small grains between ½ and 2 ½ inches open.”. It is not apparent to the applicants how the hopper opening sizes for feeding grains teaches anything about separating compressed, recyclable garbage.

In addition there is no suggestion or implication in the three Hirschler patent of an ability
10 for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

16. Claim 2 is cancelled. Applicants respectfully note that the physical screen size chosen for the instant invention is based on the requirements for processing over 100 tons of
15 material in twelve hours; this restriction is not disclosed in the references. The only dimension noted by Hirschler is in § 15, L 55+; no screen size is mentioned.

In addition there is no suggestion or implication in the three Hirschler patent of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

20 17. Claim 3 is cancelled. Applicants respectfully agree that the choice of screen size is dependent on the material to be screened. In the instant invention the screen size is based on the composition and size distribution of the compressed refuse being processed. A key

novelty of the instant invention is the sequence of the particular series of steps performed to achieve compositional classification, regardless of physical size. Referenced inventions are not capable of handling the variety of material required of the instant invention.

5 In addition there is no suggestion or implication in the three Hirschler patent of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

18. Claim 4 is cancelled. Applicants respectfully point out that the word pneumatic is not found in [557]. While air flow is called out, the term “exhausted” is never used. In § 13

10 L44 Hirschler says: “This will control the amount and volume of air flow therethrough so as to adjust the air flow through the material and debris separator assemblies.” There is a distinct difference to the instant invention where air is used to separate after the screening has taken place; at no time is air separation used simultaneously with the screening process itself; air separation is always subsequent to screening.

15 In addition there is no suggestion or implication in the three Hirschler patent of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

19. Claim 5 is cancelled. Applicants respectfully point out that the only dimension noted by Hirschler is in § 15, L 55+ where he says, “...The opening of the feed hopper on
20 coarse grains will run between 1 ½ and 4 inches open. On small grains between ½ and 2 ½ inches open.”. One may assume that the hopper opening size for feeding grains indicates the range of cereal plus debris sizes to be screened; this information does not

address what the desired final size distribution is to be which is necessary for screen size determination. How this information teaches about screen sizes for separating compressed garbage is not apparent.

In addition there is no suggestion or implication in the three Hirschler patent of an ability
5 for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

20. Claim 6 is cancelled. Applicants respectfully note that the words “compress” and “compressed” do not appear in US 5,098,557. It seems unlikely that cereal grains would ever be deliberately compressed or undergo a deliberate “compressing” operation while
10 still mixed with foreign material.

In addition there is no suggestion or implication in the three Hirschler patent of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

21. Claim 7 is cancelled. Applicants respectfully note that [557] employs air separation
15 in a manner distinctly different from the instant invention where air is used to separate after the screening has taken place; at no time is air separation used simultaneously with the screening process itself; air separation is always subsequent to screening.

In addition there is no suggestion or implication in the three Hirschler patent of an ability for the apparatus to process any material other than a food product. Applicants
20 respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

22. Claim 8 is cancelled. Applicants respectfully note that the only dimension noted by Hirschler is in col. 15, lines 55+ where he says, “...The opening of the feed hopper on

coarse grains will run between 1 ½ and 4 inches open. On small grains between ½ and 2 ½ inches open.”. While Hirschler does discuss separation of “heavy” and “light” contaminants, at no time does he associate a dimension with them. In the instant invention there are few “contaminates”; not withstanding that it is a garbage stream, the goal is to recycle as much as possible of the starting material as can be classified into economic categories. The instant invention apparatus and method are only practical if the recovery for recycling, is over 80% of the material fed into it.

In addition there is no suggestion or implication in the three Hirschler patent of an ability for the apparatus to process any material other than a food product. Applicants respectfully submit that there is no basis for a 35 U.S.C. 102(b) rejection.

23. Claim 9 is cancelled. New claims have been written with added restrictions.

24. Claim 10 is cancelled. New claims have been written to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this office action.

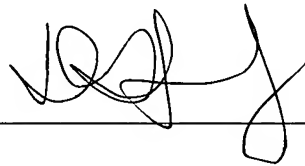
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Conclusion

Applicants respectfully cancelled claims 1-10 and added new claims 11 through
5 19. Applicants believe remaining claims are in condition for allowance, and thus,
reconsideration of the application is requested.

Respectfully submitted,



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